Artikel Penelitian

How to Make Elderly Satisfy with Primary Physician's Health Education and Medical Consultation? Lesson Learnt from Health Empowerment Program in Pension Bank in Indonesia

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Abstract

Introduction: *Health education program to recognize and prevent degenerating disease is important for elderly. therefore, a national pension bank in Indonesia set initiative to provide health empowerment program in their waiting room, to optimize momentum when elderly community come and gather regularly in pension bank at every first week of the month. The bank organized health education and medical consultation program in the waiting room, cooperated with trained health educator and physician. This study investigated how elderly satisfy with the programs, and its effect to program and institution image.*

Method: *We investigated 438 elderlies in 10 cities of 14 pension bank branches in Indonesia who participated in health education and consultation program. We assessed their satisfaction level related to health education and its cause using SERVQUAL approaches that consist of tangible, reliability, responsiveness, assurance and empathy. We also investigated how it would trigger individual willingness to spread word of mouth in promoting the health education program and the institution to other elderly, using standardized equation modeling (SEM) analysis.*

Result: *Most of elderly satisfy and understood the both health education content (90%) and considered this program as meaningful program (84%). In health education, the highest factor contributes to elderly satisfaction were tangibles (educator and doctor performance) and reliability factors (regular schedule and delivery method of health education content). Meanwhile in medical consultation, doctor's performance (tangible factor), responsiveness and empathy to elderly health problem contributed equally important to elderly satisfaction. Medical consultation contributed more in triggering word of mouth to promote the program and institution (SEM r=0.81) rather than of health education (SEM r=0.58)*

Conclusion: *Not only doctor's performance and health content delivery method, but responsiveness and empathy were important key factors to provide successful health education and services for elderly. Elderlies highly appreciated pension bank's initiative in providing health education and consultation while optimizing time in waiting room, therefore this model can be applied in further health education program.*

Keywords: *health education, health consultation, elderly satisfaction, SERVQUAL*

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Bagaimana Membuat Komunitas Usia Lanjut Puas dengan Edukasi Kesehatan dan Konsultasi Kesehatan oleh Dokter Layanan Primer? Hal yang Dipelajari dari Program Kesehatan Bank Pensiunan

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Abstrak

Pendahuluan: *Edukasi kesehatan untuk mengenali dan mencegah penyakit degenratif sangat penting untuk usia lanjut, oleh karena itu, sebuah bank pensiunan nasional di Indonesia berinisiatif untuk menyediakan program kesehatan di ruang tunggunya, untuk mengoptimasi momentum ketika para usia lanjut datang dan berkumpul secara regular di bank pensiunan setiap minggu pertama setiap bulan, bank tersebut mengorganisasi edukasi kesehatan dan program konsultasi medis di ruang tunggu, bekerja sama dengan edukator kesehatan terlatih dan dokter. Penelitian ini menginvestigasi kepuasan usia lanjut dengan program tersebut, dan dampak program tersebut serta citra perusahaan.*

Metode: *Tingkat kepuasan terhadap edukasi kesehatan diukur pada 438 lanjut suia di 14 bank pensiunan yang ada di 10 kota menggunakan pendekatan SERVQUAL, yang terdiri dari* ***tangible, reliability, responsiveness, assurance*** *dan empati. Juga diteliti bagaimana edukasi kesehatan yang dilakukan akan memicu peserta untuk secara sukarela menyebarkan informasi kesehatan yang diberikan kepada individu usia lanjut lainya. Pengukuran tersebut menggunakan analisis* ***standardized equation modeling*** *(SEM).*

Hasil: *Sebagian besar individu usia lanjut puas dan mengerti dengan isi edukasi kesehatan (90%) dan menganggap program ini sebagai program yang berarti (84%). Dalam edukasi kesehatan, faktor yang paling berkontribusi terhadap kepuasan individu lanjut usia adalah* ***tangibles*** *(edukator dan penampilan dokter) dan faktor reliabilitas (jadwal yang regular dan metode pemberian konten edukasi kesehatan). Sementara dalam konsultasi medis, penampilan dokter (faktor* tangible*),* ***responsiveness*** *dan empati terhadap masalah kesehatan usia lanjut juga memiliki kontribusi penting terhadap kepuasan lanjut usia. Konsultasi medis berkontribusi lebih dalam memicu penyebaran informasi untuk mempromosikan program dan institusi (SEM r=0,81) dibandingkan edukasi kesehatan (SEM r=0,58)*

Kesimpulan: *Hal yang penting dalam penyampaian informasi bukan hanya penampilan dokter dan konten kesehatan, namun juga* ***responsiveness*** *dan empati. Individu usia lanjut sangat menghargai inisiatif bank pensiunan dalam menyediakan edukasi kesehatan dan konsultasi sementara mengoptimasi ruang tunggu, sehingga model ini dapat diaplikasikan dalam program kesehatan selanjutnya.*

Kata Kunci: *Edukasi kesehatan, konsultasi kesehatan, kepuasan usia lanjut, SERVQUAL*

Introduction

Health education for elderly has been accepted as key factor to maintain their health status and lifestyle. Due to higher risk of having disease like degenerated disease, metabolic syndrome and infectious disease, elderly put high interest on health education. with appropriate approach and message delivery method, elderly would appreciate the health education, try to understand and to be encouraged in applying the message in their lifestyle. Adoption of a healthy lifestyle not only helps in prevention of diseases, but also in reducing the risk of complications resulting from these diseases.[1–3]

Studies confirmed that appreciation or satisfaction level to health education service is now not only linked to improvements in the quality of health care and health outcome.[4,5]

Furthermore, satisfied elderly are more likely return for further care and recommend the health center to others.[6] However, to gain sufficient satisfaction level from the elderly is not simple. Health education to elderly need special preparation and implementation plans because their defect in hearing, sight and memories may deteriorate their capacity in understanding health message delivered. Moreover, their age may increase their awareness level of medical treatment.[1,7] Health education approach has the potential to be low cost and an effective way of improving overall patient satisfaction and eventually improving overall health status for the entire population.[8,9]

In pension bank, pensioners (age above than 55 years old) has chance to gather and spend waiting time at around 30-60 minutes to withdraw pension money every first week of the month. Waiting room has also been considered as potential site to deliver health education message.[10] This condition initiated a pension bank in Indonesia to conduct customer health empowerment program in form health education program and medical consultation in the waiting room. The program was performed through collaboration with trained health educators or general practitioners to perform health education module in the waiting room and medical consultation in specific room nearby. Using standardized health education module, general practitioners educated elderly about prepared health topics for 30-60 minutes. After having health education program, if elderly need further personal discussion related to their physical problem, they may have private health consultation with physician. the consultation room was provided specifically for health consultation nearby waiting room of the pension bank.

The exploration of satisfaction with health education that was conducted in non-health care institution, such as banks, is still limited. with it as a fact, we conduct this study to investigated how elderly satisfied with health education program in pension bank. Furthermore, we also investigated how it might build positive image to the bank by assessing whether elderly satisfaction would trigger word of mouth to promote the health empowerment program and institution to their colleagues.

Method

Study Design

The cross sectional comparative study was conducted using questionnaire to guide interview to 438 elderlies in ten cities of pension bank branches in Indonesia. the areas consisted of two cities in Sumatra island (Medan and Binjai), six cities in Java Island (Jakarta, Bogor, Depok, Tangerang, Bekasi, and Surabaya) and two cities in Sulawesi Island (Makassar and Sungguminasa).

Participants

Pensioners (aged more than 55 years old) who visited pension bank were recruited as study participants. they must participate in health empowerment program in last 6 months at least once. Six-month duration was considered to reduce recall bias.

Procedure of data collection and sample size determination

Subject was collected using stratified random sampling to determine number of subject collected in each city and by how long their pension time, with pension time of 10 years as the cut-off. To represent the characteristic of elderly participated in the program, we use descriptive study sample size formula with minimal sample size at 350 subjects using confidence interval 95%, error 5% and estimated unknown proportion was 50%. Data was collected using structured questionnaires

Health Empowerment Program

Health empowerment program consist of health education and medical consultation program. Health education module was prepared by scientific team and delivered to all branches to standardize the health content delivered. Topics prepared were related to healthy lifestyle (physical activity and nutrition), age-related diseases (diabetes mellitus, hypertension, cardiovascular and infectious disease like dengue and diarrhea) and mental health (dementia). Education session was conducted in waiting room for 30-60 minutes to optimizing queuing time which usually spent by elderly to withdraw their pension allowance. Health educators scheduled to employ health education regularly in the first week of the months. Education process was supported with presentation facility such as display flipchart or projector, brochures and audio system.

Health education was conducted using standardized module which create uniform message delivery in all site of education. Module was design by single expert team then pretested to provide clear health message delivery which can be understood and applied by elderly. The applicability and simplicity of health education message were maintained by the designer team. The example of message in the education module was the exam-

ple of food choice in elderly, the importance of increasing protein source in elderly diet, or the example of simple daily exercise in the household. Health education modules were equipped with interactive quiz and games to increase elderly attention and interest. We conducted health education program only in the first week, because that was the peak time for customer to visit and withdraw their pension allowance in the bank.

If elderly need further and more personal health consultation, they might have special time in medical consultation program to discuss his/her problem with general practitioner. The consultation room was provided specifically for health consultation nearby the waiting room of pension bank. In this session, elderly obtain personalized medical advice from the GP based on their health problem and might also prescribed first line medication based on the diagnosis.

Operational Definition of Variables

Customer (elderly) satisfaction index assess elderly satisfaction using Likert scale with a maximum scale of five. Maximum score indicated higher satisfaction value. The size divided by the highest scale and expressed in terms of percent. We considered subject satisfy if his/her satisfaction index was above 60% score of all subjects.

To measure factor related to satisfaction, we used Satisfaction Model of SERVQUAL (Service Quality) assessment by Parasuraman, *et al*.[11] SERVQUAL dimensions is to have five dimensions (see Table 1). First dimension was physical evidence or tangibles which means appearance and capabilities of physical infrastructure as well as the state of the surrounding environment. Second dimension was reliability which means ability to provide services with immediate, accurate and satisfactory in accordance with customer expectations through the timeliness, optimum service, sympathetic attitude, and high accuracy. Third dimension was responsiveness which means ability to assist and provide services quickly and accurately with clear information delivery. Forth was assurance, the certainty that the knowledge and ability of the company to gain confidence of the customer to the service of the company. the last dimension was empathy, which asking whether the service provide certainty sincere and personal individualized or given to customers by striving to understand the desires of consumers. We developed item to measure those five dimensions separately related to group health education or personal health consultation. All dimension was assessed used Likert scale with a maximum scale of five, with maximum score indicated higher importance.

After questioning satisfaction index, we also questioned whether elderly willingly to share or promote the health education and the pension bank as institution managing the program to other elderly. We used Likert scale with a maximum scale of five, with maximum score indicated higher willingness of promoting. We considered they willingly to share if the Likert scale was above 3.5.

Data Analysis

Table 1. Description of Items Used to Identify Dimen sions of Satisfaction in SERVQUAL Model

Dimension of satisfaction	Group health education	Personal health consultation
Tangibles	- Health educator (performance, communication skills) - Place of group education (clean, comfort) - Presentation media	- Physician (performance, using doctor white coat, hospitality) - Health examination instrument (condition and completeness) - Place of consultation (clean, comfort)
Reliability	- Time adequacy - Easiness of health education content - appropriateness to elderly need - frequency - method of interactive education	- appropriateness of the services to elderly need - frequency - method of consultation and examination
Responsiveness	- How educator response to questions (appropriateness and clarity of answer) - time adequacy for questioning sessions	- How physician examine and response to questions (appropriateness and clarity of answer)
Assurance	- how the health education content would - encourage and motivate elderly in daily lives - increase their health knowledge - increase productivity	- how the health consultation would help solving their health complaint - increase their health knowledge
Empathy	- How health educator response to elderly value and complaints	- Howphysician response to elderly value and

We used SPSS version 20.0 (SPSS Inc. Chicago 2011) to perform descriptive analysis which shows characteristics of the subjects and their satisfaction level. Then, we were assisted by STATA version 13 to perform standardized equation modeling (SEM) analysis. SEM analysis would provide Comparative Fit Index (CFI) ranged from 0 to 1 with values closer to 1.0 indicating good fit. All variables involved in SEM analysis, namely satisfaction index, service quality dimensions and willingness to promote were in continuous data.

Result

Subject Characteristics

We collected 342 subjects who participated in the health education program. The subjects' characteristic is presented in Table 2. Most of them gained high school or higher education. Around one third of them still had additional income by working as entrepreneur. Most of them still had person in the family depend on them. Elderly who self-finance themselves were at 48-62%. More than 50% elderly must travel for 5 km or more to withdraw pension allowance in the pension bank.

Elderly Satisfaction Level on Group Health Education and Personal Health Consultation

Elderly was satisfied with health empowerment program overall was 77.3%. Satisfaction level on health consultation was not difference to health education at 77.4% and 77.2% respectively (chi square p-value >0.05). In those who frequently participated, satisfaction level was higher. Health consultation was consistently had higher value of satisfaction than health education in frequent and non-frequent group (Figue 1). However, those findings were not statistically significant (chi square p-value >0.05).

Table 2. Characteristic of Participant in Health Education for Elderlies' Program (n=342)

Characteristic	%
Duration of pension time	
>10 years	49.4
Frequency of participation in health education	
Frequent (> 2 times in last 6 months)	50. 3
Education	
University	42. 2
High School	38. 1
Lower	19. 5
Currently working	33.5
Current income*	
<2. 5 million IDR / month	46. 9
2-5 - 5 IDR / month	14. 5
>5 million IDR / month	38.5
No. of family member	
1-3 persons	85. 1
>4 persons	14. 8
Self-financing	61. 4
Distance from home	
Less than 5 km	44.0
Participation in Program	
Group health education only	11. 4
Health consultation only	58.8
Both	29. 7

Factor Associated to Elderly Satisfaction with Health Education and Medical Consultation

In health education, elderly satisfaction was highly affected by tangibles and reliability factors, with CFI score at 0.83 and 0.77 respectively. Elderly prioritize tangible factors like health educator performance, communication skill and room comfort and cleanliness. Then, they assess satisfaction from reliability factors like regular schedule and delivery method of health education. Factors like responsiveness, assurance and empathy has lower association to satisfaction with health education, as stated by CFI score at 0.46-0.56 (Figure 2).

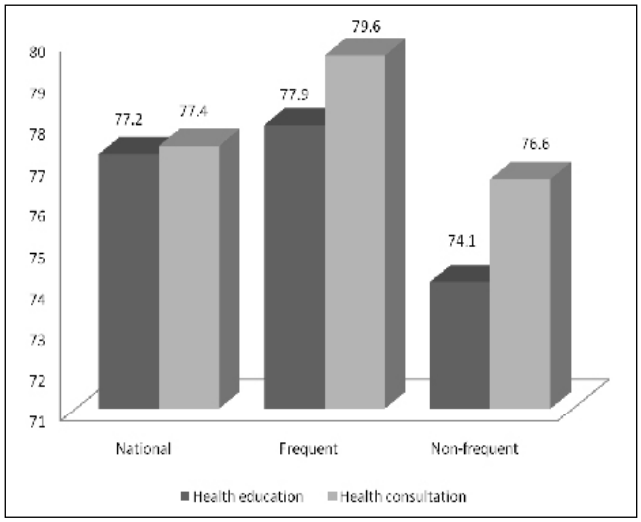

Figure 1. Satisfaction Level on Health Education and Consultation Based on Frequent and Non-Frequent Participated Subject

Different findings were seen in medical consultation, where all five dimensions had much balanced and smaller difference of CFI, range from 0.35 to 0.41. Tangibles factor or doctor performance and consultation room condition still had higher valuation, but then elderly prioritized doctor's responsiveness and empathy. They valued much on how doctor examine, give appropriate consultation and respect to elderly questions or complaint (Figure 3).

Figure 2. Analysis of Structural Equation Modeling (SEM) of Aspects Contribu ting to Satisfaction with Group Health Education and How It Will Contribute to Participants' Willingness to Share/Promote the Program and Institution to Others

Figure 3. Analysis of Structural Equation Modeling (SEM) of Aspects Contributing to Satisfaction with Personal Health Consultation and How It Will Contrib ute to Participants' Willingness to Share/Promote the Program and Institu tion to Others

How elderly satisfaction to health empowerment program would trigger word of mouth of promotion

Majority elderly state that they willingly share and promote the program and institution if they satisfied to the program. Figure 2 and Figure 3 show that elderly satisfaction on health education and consultation contributed to word of mouth of promotion. Satisfaction of health education only had small CFI score (0.11) to trigger elderly willingness to share the program to others. It means high satisfaction to the program did not automatically trigger them to share the program to other. However, satisfaction to health education had better CFI score (0.58) to trigger promotion of institution carried the program.

Meanwhile, medical consultation had bigger CFI score than health education. Elderly who satisfied with medical consultation would willingly promote the program and institution held it at CFI score 0.49 and 0.81 respectively. It means health consultation had higher appreciation and trigger better word of mouth of promotion rather than health education.

Discussion

This study was novel in investigating elderly satisfaction level to health education program which conducted in non-health institution. This study might give new perspectives and idea about new model of health education in waiting room of a pension bank and its effectiveness, which was targeted to optimize the queuing time for services.

Tangibles factor were prominent aspect of satisfaction in health education and consultation. This finding confirms previous study in health education effectiveness which stated that first positive impression inarguably related to physician looking, performance and communication skill.[1,4,8] Zachariae[12] stated that education with appropriate communication skill would build better rapport to the audience, and further may increase their perceived control over the disease. Elderly also took the condition and conveniences of health education facilities like room cleanliness, presentation and audio facilities, since it will facilitate them to understand the message better.

However, in personal health consultation, elderly had different consideration in determining cause of satisfaction. They still consider the doctor's performance (tangible) as highest component determining satisfaction. Hence, the strength of association of all aspect was equal. Not only tangibles, but doctor's responsiveness, empathy, reliability and assurance were all requested by elderly in balance to perform satisfying services. This finding was supported by other studies of quality assurance of health services in clinical settings.[13,14] Specifically in health consultation, the importance of doctor's empathy and responsiveness was also confirm by studies of health consultation in chronic diseases in Japan.[15] Epstein[16] also stressed that measuring satisfaction in consultation must consider aspect of doctor's responsiveness and empathy, but in balance with how doctor may deliver the message in appropriate way as their audience needed.

In this study, the concept of health message delivery which is simplicity and applicability was well accepted by most elderly, which was proven by high satisfaction rate. When elderly feel satisfies and highly appreciate the health education and consultation program, it will trigger spontaneous word of mouth action. Most of elderly would be willingly endorse the program and the institution which held the program. However, health consultation would trigger better endorsement rather than health education. This might be due to health consultation gives more personalized approach to elderly, so it creates better impression. Yet, health education still creates good endorsement in the elderly to promote and share the program to their community. However, health consultation requires more resources than health education. Health education, when designed using appropriate simple message and touching elderly real problem in daily activity, still effective in promoting healthy life style, as Storey and Figueroa[17] stated in their study about the influence of community norm to individual habit.

In conclusion, elderly communities appreciated health education and consultation in pension bank as a satisfying and meaningful program to optimizing and creating quality time while queuing. Health educator and doctors' performance, and health content delivery method were considered important key factor to successful health education for elderly. This approach was also potential in building institution positive image. However, not only doctor and health worker could contribute in health prevention program, but health volunteer and cadre was proven could be involved.[18] therefore, this study also recommended further exploration of health education effectiveness in elderly which carried out by health cadres.

Competing Interest

All authors have received funding for research, and/or honoraria for consultancies, advisory panels, or speakers' bureaus on behalf of companies, including the sponsor of this study

Authors' Contributions

First author participated in the proposal's design, coordination, data analysis, drafted and completed the manuscript. Second author participated in the proposal's design, and coordination, data collection, analysis and in drafting the manuscript. All authors read and approved the final manuscript.

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program is one of Daya program.

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